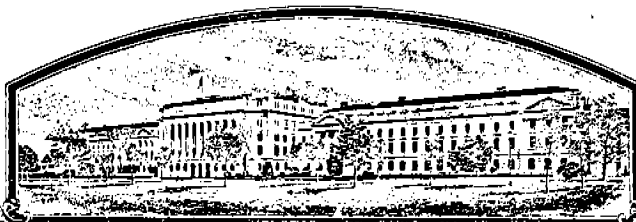


No.

7400025



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Delta and Pine Land Company

Whereas, THERE HAS BEEN PRESENTED TO THE

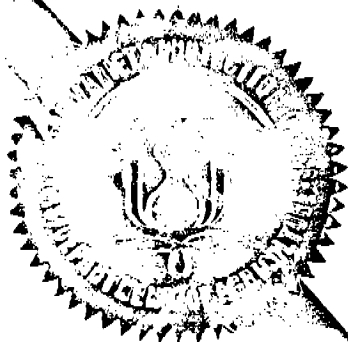
Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *seventeen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT (STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

COTTON

'Deltapine 66'



In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington this 20th day of November in the year of our Lord one thousand nine hundred and seventy-four

Attest

L. J. Rollin
Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service

Earl L. Buttz

Secretary of Agriculture

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: See Reverse.

1. VARIETY NAME OR TEMPORARY DESIGNATION DELTAPINE 66	2. KIND NAME COTTON	FOR OFFICIAL USE ONLY	
3. GENUS AND SPECIES NAME GOSSYPIMUM HIRSUTUM	4. FAMILY NAME (Botanical) MALVACEAE	PV NUMBER 7400025	
	5. DATE OF DETERMINATION OCTOBER, 1968	FILING DATE 10/9/73	TIME 8 A.M.
		FEE RECEIVED \$ 250.00	BALANCE DUE \$ -
		\$ 250.00	\$ -
		\$ 250.00	\$ -
6. NAME OF APPLICANT(S) DELTA & PINE LAND COMPANY	7. ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) SCOTT, MISSISSIPPI 38772	8. TELEPHONE AREA CODE AND NUMBER 601/742-3351	
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (Corporation, partnership, association, etc.) CORPORATION		10. STATE OF INCORPORATION MISSISSIPPI	11. DATE OF INCORPORATION APRIL 29, 1886

12. Name and mailing address of applicant representative(s), if any, to serve in this application and receive all papers:

EARLY C. EWING, JR.
DELTA & PINE LAND COMPANY
SCOTT, MISSISSIPPI 38772

13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:

- ☒ 13A. Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.)
- ☒ 13B. Exhibit B, Botanical Description of the Variety
- ☒ 13C. Exhibit C, Objective Description of the Variety
- ☒ 13D. Exhibit D, Data Indicative of Novelty
- ☒ 13E. Exhibit E, Statement of the Basis of Applicant's Ownership

14A. Does the applicant(s) specify that seed of this variety be sold by variety name only as a class of certified seed? (See Section 83(a). (If "Yes," answer 14B and 14C below.) ☐ YES ☒ NO14B. Does the applicant(s) specify that this variety be limited as to number of generations? ☐ YES ☐ NO14C. If "Yes," to 14B, how many generations of production beyond breeder seed? ☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED

The applicant declares that a viable sample of basic seed of this variety will be deposited upon request before issuance of a certificate and will be replenished periodically in accordance with such regulations as may be applicable.

The undersigned applicant(s) of this sexually-reproduced novel plant variety believes that the variety is distinct, uniform, and stable as required in Section 41 and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Applicant is informed that false representation herein can jeopardize protection and result in penalties.

DELTA & PINE LAND COMPANY

May 14, 1973
(DATE)June 2, 1973
(DATE)

Early C. Ewing, Jr., Vice President

Elmer L. Gilbert

(SIGNATURE OF APPLICANT)

EXHIBIT A

DELTA & PINE LAND COMPANY'S APPLICATION FOR DELTAPINE 66

ORIGIN AND BREEDING HISTORY:

Deltapine 66 originated from a progeny selection program in the F2 population arising from the 1966 cross Deltapine Experimental Strain 55916-022-11-21 X Deltapine Experimental Strain 5540-62-71-85-127. Progenies were reselected in 1967, 1968, 1969. The final selection was made in October 1969.

This variety has been carefully selected over a number of generations as explained in the first of this section in that the characters described in "Exhibit D" are demonstratively repeated in each generation within the variation caused by environmental differences. In order to assure this stability, plants of this variety are reselected at frequent intervals, grown in progeny rows, checked in progeny tests and variety reconstituted by bulking lines which are characteristic of the variety. This variety hereinafter tested under the designation Deltapine 6621-723-81.

EXHIBIT B

DELTAPINE 66 (7400025) Revision of Exhibit B

BOTANICAL DESCRIPTION:

This is a variety of upland cotton Gossypium hirsutum. It has an erect, many branched stem. A vigorous root system, medium to small in size, medium green colored, smooth small leaves, flower corollas and anthers are cream colored, bolls obovate and opening fully, linters are gray and seed are dark brown.

The leaves are smooth grading 7 on Delta & Pine Land Company's scale of 2 hairy to 8 very smooth.

Date May 17, 1974

Early C. Ewing, Jr.
Early C. Ewing, Jr., Vice President

Coding Form 1/29/74

FORM APPROVED, OMB NO. 42-03713

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

EX-17 C
(Cotton)

GRAIN DIVISION
HYATTSVILLE, MARYLAND 20782

OBJECTIVE DESCRIPTION OF VARIETY
COTTON (GOSSYPIMUM SPP.)

DELTA & PINE LAND COMPANY
(Firm, Co., or P.F.E. No., City, State, and ZIP Code)

FOR OFFICIAL USE ONLY

PVPO NUMBER

74 00025

VARIETY NAME OR TEMPORARY
DESIGNATION

DELTA PINE 66

SCOTT MISSISSIPPI

Enter the number that describes the varietal character of this variety in the boxes below.
Enter in first box (0-9) or (0/9) when number is either 99 or less or 9 or less.

1 = GOSSYPOLIUM HIRSUTUM 2 = GOSSYPOLIUM BARBADENSE

Enter in first box (0-9) or (0/9) when number is either 99 or less or 9 or less.

2 = DELTA 2 = CENTRAL 1 = HIGH PLAINS 2 = EL PASO AREA

2 = SAN JOAQUIN OTHER (Specify)

5 = NO. OF DAYS EARLIER THAN 2 = 1 = COKER 310 2 = DELTAPINE 16 3 = STONEVILLE 213
4 = PAYMASTER 111 5 = ACALA 1517-70 6 = ACALA SJ-1
7 = LANKART 57 8 = OTHER (Specify)

2 = 1 = FOLIAGE SPARSE 2 = DENSE
3 = OTHER (Specify)

00 = 1 = COKER 310 2 = DELTAPINE 16 3 = STONEVILLE 213
4 = PAYMASTER 111 5 = ACALA 1517-70 6 = ACALA SJ-1
7 = LANKART 57 8 = OTHER (Specify)

3 = 2 = 3 = 4 = CM. TO FIRST FRUITING BRANCH 3 = NO. OF NODES TO FIRST FRUITING BRANCH (from cotyledonary node)

11 = 2 = 3 = 4 = 5 =

2 = 3 = 4 =

1 = 2 = 3 = 4 =

2 = 2 =

1 = 2 = Yellow Pollen: 1 = CREAM 2 = YELLOW

3 = 3 = 2 = 1 = DETERMINATE 2 = INDETERMINATE

3 = 3 = 1 = 2 =

1.0 = 2 = 2 = 4 =

BOLLS:

☐ 2 Locules: 1 = 3-4
2 = 4-5
 ☐ 32 NO. SEEDS PER BOLL
 ☐ 400 LINT PERCENT
 ☐ 40 MM. DIAMETER

☐ 2 Pitted: 1 = NONE
2 = FINELY
3 = COARSELY
 ☐ 560 GRAMS SEED COTTON PER BOLL
 ☐ 2 Breadth: 1 = BROADER AT BASE
2 = BROADER AT MIDDLE

☐ 3 Type: 1 = STORMPROOF (WESTBURN 70)
2 = STORM RESISTANT (LANKART 57)
3 = OPEN (DELTAPINE 16)
 ☐ 3 Shape: 1 = LENGTH < WIDTH
2 = LENGTH = WIDTH
3 = LENGTH > WIDTH

16. BRACCTEOLLES:

☐ 1 Breadth: 1 = LENGTH < WIDTH 2 = LENGTH = WIDTH 3 = LENGTH > WIDTH
 ☐ 2 Teeth: 1 = 3-4 2 = 5-7 3 = 8-10
4 = OTHER (Specify)

17. YIELD: Compared to—

☐ 100 PERCENT LESS THAN
 ☐ 2 } 1 = COKER 310 2 = DELTAPINE 16 3 = STONEVILLE 213
 4 = PAYMASTER 111 5 = ACALA 1517-70
☐ 100 PERCENT MORE THAN
 ☐ 2 } 6 = ACALA SJ-1 7 = LANKART 57

18. FIBER LENGTH (Complete one or more of the following and give the means):

☐ 046 SPAN LENGTH 50%
 ☐ 107 SPAN LENGTH 2.5%
 ☐ U.H.M. LENGTH

☐ MEAN LENGTH
 ☐ 34 STAPLE LENGTH 32nd INCHES

☐ UNIFORMITY RATIO (MEAN/U.H.M.)
 ☐ 43 UNIFORMITY INDEX (50% SPAN/2.5% SPAN)

19. FIBER STRENGTH AND ELONGATION:

☐ 1,000 P.S.I.
 ☐ 51 ELONGATION E₁
☐ STILOMETER T₀

☐ 450 MICRONAIRE READING
 ☐ 2458 YARN STRENGTH (Give test method)
 CSP CARDED 1/32" T.F.
 ☐ 229 STILOMETER T₁

20. DISEASE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

☐ 2 VERTICILLIUM WILT
 ☐ 2 FUSARIUM WILT
 ☐ 2 ROOT KNOT NEMATODE
 ☐ 0 BACTERIAL BLIGHT (Race 1)

☐ 0 BACTERIAL BLIGHT (Race 2)
 ☐ 0 ASCOCHYTA BLIGHT
 ☐ 0 PHYMATOTRICHUM ROOT ROT
 ☐ 0 RHIZOCTONIA

☐ 0 ANTHRACNOSE
 ☐ 0 RUST
 ☐ OTHER (Specify)

21. INSECT: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

☐ 1 BOLL WEEVIL
 ☐ 1 APHID
 ☐ 1 FLEAHOPPER
 ☐ 1 LEAFWORM

☐ 1 FALL ARMYWORM
 ☐ 0 GRASSHOPPER
 ☐ 1 LYGUS
 ☐ 1 PINK BOLLWORM

☐ 0 STINKBUG
 ☐ 1 THRIP
 ☐ 1 CUTWORM
 ☐ 1 SPIDERMITE

☐ OTHER (Specify)

REFERENCES: The following publications may be used as a reference aid for the standardization of terms and procedures for completing this form:

- (1) Brown, Harry B., and J. O. Ware, 1958, Cotton, McGraw-Hill Book Company, Inc., New York.
- (2) Lewis, C. F., and H. H. Ramey, Jr., 1971, 1970 Regional Cotton Variety Tests, ARS 34-130, United States Department of Agriculture.

COLORS: Nickerson's or any recognized color fan may be used to determine flower color of the described variety.

EXHIBIT D

Revision of Delta & Pine Land Company's Exhibit D for
Deltapine 66 (7400025)

June 13, 1974

DATA INDICATIVE OF NOVELTY

Deltapine 66 most closely resembles Deltapine 16 except that it is more tolerant of high nighttime temperatures as indicated by higher yields than Deltapine 16 in the lower desert areas of Arizona, California and Mexico. Its lint percentage is slightly higher (+0.5) than that of Deltapine 16 (Tables 1, 2).

Its fiber properties compare with those of Deltapine 16 as follows: (Tables 1, 2, 3).

Staple Length (Digital Fibrograph)	.03 inch less
Length Uniformity (Digital Fibrograph)	Same
Tensile Strength (Stelometer)	Same
Micronaire	.3 lower

Agronomically it has a stiffer stalk, is more resistant to lodging and seed cotton will not hold in the open bolls as well as Deltapine 16. It is tolerant of Verticillium wilt (Verticillium albo atrium). Deltapine 66 has good seedling vigor.

Deltapine 66 is a heat tolerant variety in that it has the ability to set fruit in environments characterized by high temperatures. This heat tolerance is exhibited by the production of flowers which produce large amounts of viable pollen. The pollen in normal plants is partially or nearly completely sterile about three weeks after a period of several nights having low temperatures above 80° F. These flowers bloom normally, but then shed shortly after anthesis since no pollination has occurred. Tables 4, 5, 6 show the relative production of fertile flowers for three different cultivars during part of July and August from a test in the Imperial Valley about 20 miles north of Barwley, California.

It has also been observed that the total number of flowers produced by Deltapine 66 is approximately 15% higher than Deltapine 16 and 82% higher than Stoneville 213 (see Tables 4, 5, 6).

	<u>Total number of flowers</u>	<u>%</u>	<u>No. of Fertile Flowers</u>	<u>%</u>
Deltapine 66	379	115	209	535
Deltapine 16	331	100	39	100
Stoneville 213	208	63	43	100

This greater flower production is due to the fact that Deltapine 66 produces two forms at many fruiting nodes or often when a form is shed another is formed at that node. Elmer Gilbert, the breeder, has given this the name "back fruiting" describing the ability of the plant to come back and fruit again.

As a consequence of its heat tolerance, it has a high yield in the lower desert areas of Arizona and California (Tables 1, 2, 3). Its lint percentage is slightly higher than that of Deltapine 16 (Tables 1, 2, 3).

Cotton Quality

1. Grade: The Shirley Analyser results reveal that the Deltapine 16 variety contains a little less seed, leaf, etc., than the other two samples.
11. Staple: The effective staple length of the Deltapine 66 is 1/32nd shorter than the other two samples. Similar percentages of fiber less than 1/2 inch have been recorded from the three samples and the actual levels can only be considered to be relatively high.
111. Micronaire: The micronaire value and hair weight of the Deltapine 66 is a little lower than the other two samples. Similar and satisfactory maturity results have been recorded from the three samples.
- IV. Strength: The zero gauge strength of the Deltapine 66 is significantly stronger than the other two samples - this difference is not, however, confirmed in the 1/8" gauge tests.
- Yarn Quality: Similar yarn strength values have been recorded from the three samples. The Deltapine 66 sample is a little more irregular and contains a little more nep than the other two samples.

See Table 7.

Data on all measured characteristics is given in the enclosed tables. Except as shown above, these data do not reveal other differences.

Date June 13, 1974
Signed Early C. Ewing, Jr.
Early C. Ewing, Jr., Vice President

EXHIBIT E (Amendment)

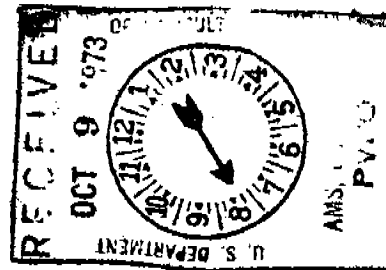
DELTA & PINE LAND COMPANY'S APPLICATION FOR DELTAPINE 66

Delta & Pine Land Company is the owner of plant variety protection rights to the variety Deltapine 66. The breeder is an employee of the company and has executed an assignment of Plant Variety Rights to the Company.

DATE: November 1, 1973

SIGNED: *Early Ewing*

INSTRUCTIONS



GENERAL: Send an original copy of the application, exhibits and \$250.00 fee to U.S. Dept. of Agriculture, Agricultural Marketing Service, Grain Division, 6525 Belcrest Road, Hyattsville, Maryland 20782. (See Section 180.175 of the regulations and rules of practice.) Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.

ITEM

- 5 Insert the date the applicant determined that he had a new variety based on the definition in Section 41 (a) of the Act and decision is made to increase the seed.
- 13a First, give the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method. Second, give the details of subsequent stages of selection and multiplication. Third, indicate the type and frequency of variants during reproduction and multiplication and state how these variants may be identified. Fourth, provide evidence on stability.
- 13b First, give any special characteristics of the seed and of the plant as it passes through the seedling stage, flowering stage and the fruiting stage. Second, describe the mature plant and compare it with a similar commercial variety grown under the same conditions, and indicate the differences.
- 13c A supplemental form will be furnished by the PVPO to describe in detail a variety for each kind of seed.
- 13d Provide complete data indicative of novelty. Seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty may be submitted. Seeds submitted may be sterile.
- 13e Indicate whether applicant is the actual breeder, the employer of the breeder, the owner through purchase or inheritance, etc.